# PENNSYLVANIA COMPENSATION RATING BUREAU F CLASS FILING

#### Expense Study

The following exhibits are used in the development of specific expense provisions to be used in the Bureau's proposed F-Class filing. The provisions are for Commission & Brokerage, General and Loss Adjustment Expense, and Premium Discount.

Exhibit I of the attachment presents summary figures for Standard Earned Premium, General Expenses, and Total Production Costs from the last three calendar years. The data is drawn from Pennsylvania Expense Call submissions. The data has been adjusted to include the experience for large deductible policies.

Exhibit I-A develops Standard Earned Premium at both Net and Gross bases after adjusting for Large Deductible policies and removing Expense Constant Dollars.

Exhibit II shows the development of the Expense Constant offset that is carried forward to Exhibit I.

Exhibit III shows the calculation of the Loss Adjustment Expense provision as a function of the Incurred Losses. The Loss Adjustment Expense factor is based on All-Company experience and is developed from the same source of data as Exhibit I above. We selected a three year average of Loss Adjustment Expense Ratios to Direct Incurred Losses including large deductibles on a Gross Basis.

Exhibits IV-A and IV-B show the development of an average provision for premium discount based upon the Schedule X and Schedule Y premium discount tables, respectively. The data used by the Bureau for this purpose is Unit Statistical Plan data. These exhibits form the basis for Exhibits IV-C and IV-D, which develop the average interstate build-back both for Schedule X and Y companies separately and on an All Company basis.

# EXHIBIT I ALL COMPANIES

#### CALENDAR YEAR

		1998	1999	2000
(1)	Standard Earned Premium at Bureau Rate Level including Large Deductible on a <u>Net</u> Basis excluding Expense Constant Dollars	\$ 1,698,383,125	\$ 1,819,693,020	\$ 1,857,093,302
(2)	Standard Earned Premium at Bureau Level including Large Deductible on a <u>Gross</u> Basis excluding Expense Constant Dollars	\$ 2,251,574,699	\$ 2,437,940,550	\$ 2,454,127,462
(3) (3a)	Commission and Brokerage Reported Ratio { (3) / (1) }	\$ 100,178,407 0.0590	\$ 109,519,454 0.0602	\$ 115,862,682 0.0624
(4) (4a)	Other Acquisitions Reported Ratio { (4) / (2) }	\$ 72,436,610 0.0322	\$ 73,638,512 0.0302	\$ 75,316,345 0.0307
(5) (5a)	General Expense Reported Ratio { (5) / (2) }	\$ 115,485,078 0.0513	\$ 120,704,006 0.0495	\$ 124,579,499 0.0508
		Three Year	Expense Constant	
		Average (1)	Income (2)	<pre>Difference { (1) - (2) }</pre>
	COMMISSION AND BROKERAGE OTHER ACQUISITIONS	0.0605 0.0310	0.0031 0.0017	0.0574 0.0293
	TOTAL PRODUCTION	0.0915	0.0048	0.0867
	GENERAL EXPENSE	0.0505	0.0074	0.0431

# EXHIBIT I - A ALL COMPANIES

#### CALENDAR YEAR

		1998	1999	2000
(1)	Standard Earned Premium at Bureau DSR Level including Large Deductible on a Net Basis	\$ 1,643,662,330	\$ 1,787,476,358	\$ 1,776,583,638
(2)	Multiplier to Bring Premium to Bureau Rate Level	1.0442	1.0293	1.0573
(3)	Standard Earned Premium at Bureau Rate Level <a href="including">including</a> Large Deductible on a <a href="Net Basis">Net</a> Basis <a href="fitted-left">(1) * (2) }</a>	\$ 1,716,312,205	\$ 1,839,849,415	\$ 1,878,381,880
(4)	Large Deductible Adj. at Bureau DSR Level	\$ 470,481,012	\$ 524,872,680	\$ 503,656,285
(5)	Multiplier to Bring L. D. Adj. to Bureau Rate Level	1.1758	1.1779	1.1854
(6)	Large Deductible Adj. at Bureau Rate Level $\{ (4) * (5) \}$	\$ 553,191,574	\$ 618,247,530	\$ 597,034,160
(7)	Standard Earned Premium at Bureau Rate Level <a href="including">including</a> Large Deductible on a <a href="Gross">Gross</a> Basis <a href="Gross">(3) + (6)</a> }	\$ 2,269,503,779	\$ 2,458,096,945	\$ 2,475,416,040
(8)	Expense Constant Removal Factor	0.9921	0.9918	0.9914
(9)	<pre>Expense Constant Dollars { (7)[1 - (8)] }</pre>	\$ 17,929,080	\$ 20,156,395	\$ 21,288,578
(10)	Standard Earned Premium at Bureau Rate Level <a href="including">including</a> Large Deductible on a <a href="Net Basis">Net Basis</a> <a href="excluding">excluding</a> Expense Constant Dollars <a href="fig8">(3) - (9) }</a>	\$ 1,698,383,125	\$ 1,819,693,020	\$ 1,857,093,302
(11)	Standard Earned Premium at Bureau Level including Large Deductible on a <u>Gross</u> Basis excluding Expense Constant Dollars { (7) - (9) }	\$ 2,251,574,699	\$ 2,437,940,550	\$ 2,454,127,462

## EXHIBIT II

# EXPENSE CONSTANT INCOME - ALL COMPANIES

#### MANUAL YEAR 1998

(1)	Number of Policies				222,278	
(2)	(2) Expense Constant Income With Expense Constant @ Current Level = \$ 200					
(3)	Interstate Adjustment Factor				0.90	
(4)	Adjusted Expense Constant Income {	(2) * (3)}			\$ 40,010,040	
(5)	Standard Earned Premium <u>Excluding</u> Eincluding Large Deductible on a <u>Net</u>	=	ant		\$ 2,743,708,091	
(5a)	Factor to Bring Premium to Current	Level			1.0000	
(5b)	Standard Earned Premium <u>Excluding</u> Eincluding Large Deductible on a <u>Net</u>				\$ 2,743,708,091	
(6) Standard Earned Premium <u>Excluding</u> Expense Constant <u>including</u> Large Deductible on a <u>Gross</u> Basis					\$ 3,447,193,168	
(6a)	1.0000					
(6b) Standard Earned Premium <u>Excluding</u> Expense Constant <u>including</u> Large Deductible on a <u>Gross</u> Basis at Current Level					\$ 3,447,193,168	
(8)						
(7)	Distribution of Expense Constant In	icome %	%	\$	Total Expense \$	
	(a) General Expense	63.9%		\$ 127.80	\$ 25,566,416	
	<pre>(b) Production     i) Commission     ii) Other Acquisitio</pre>	36.1% on	59.5% 40.5%	\$ 42.96 \$ 29.24	\$ 8,593,957 \$ 5,849,668	
	Total	100.0%		\$ 200.00	\$ 40,010,041	
(8)	Expense Constant Ratio for General	Expense { (	7a) / (6b) }		0.0074	
(9)	Expense Constant Ratio for Commision	on { (7b(i))	/ (5b }		0.0031	
(10)	Expense Constant Ratio for Other Ac	equisition {	(7b(ii)) /	(6b) }	0.0017	

## EXHIBIT III

# LOSS ADJUSTMENT EXPENSE RATIOS - ALL COMPANIES

## CALENDAR YEAR

	1998	1999	2000		
(1) Loss Adjustment Expense	\$ 192,678,389	\$ 244,794,693	\$ 242,985,085		
(2) Incurred Losses <u>including</u> Large Deductible on a <u>Net</u> Basis	\$ 971,994,177	\$ 1,029,741,728	\$ 1,112,188,882		
(3) Large Deductible Adjustment	\$ 283,890,125	\$ 350,792,323	\$ 311,121,166		
<pre>(4) Incurred Losses including Large   Deductible on a Gross Basis { (2) + (3) }</pre>	\$ 1,255,884,302	\$ 1,380,534,051	\$ 1,423,310,048		
<pre>(5) Ratio of Loss Adjustment Expense    to Incurred Losses including Large    Deductible on a Net Basis { (1) / (2) }</pre>	0.1982	0.2377	0.2185		
<pre>(6) Ratio of Loss Adjustment Expense   to Incurred Losses including Large   Deductible on a Gross Basis { (1) / (4) }</pre>	0.1534	0.1773	0.1707		
Three-Year Average of Loss Adjustment Expense Ratios to Direct Incurred Losses including Large Deductible on a Net Basis 0.2181					
Three-Year Average of Loss Adjustment Ex Incurred Losses including Large Deductib	0.1671				

#### EXHIBIT IV - A

# SIZE OF RISKS - SCHEDULE X COMPANIES F - CLASS BUSINESS ONLY

#### MANUAL YEAR 1999

Intrastate SEP excluding Loss Number and Expense of Risks Constant Intrastate Risks (1) (2) Up to \$5,000 1 \$ 4,452 \$5,001 - \$100,000 7 \$ 276,391 \$100,001 - \$500,000 2 \$ 551,677 Over \$500,000 \$ 2,529,392 TOTAL 11 \$ 3,361,912

#### DISTRIBUTION OF PREMIUM TO DISCOUNT BLOCK

	Number				
Size of Risk	<u>of Risks</u>	First \$5,000	Next \$95,000	Next \$400,000	Over \$500,000
Up to \$5,000	1	\$ 4,452			
\$5,001 - \$100,000	7	\$ 35,000	\$ 241,391		
\$100,001 - \$500,000	2	\$ 10,000	\$ 190,000	\$ 351,677	
Over \$500,000	1	\$ 5,000	\$ 95,000	\$ 400,000	\$ 2,029,392
TOTAL	11	\$ 54,452	\$ 526,391	\$ 751,677	\$ 2,029,392
PERCENTAGE		1.62%	15.66%	22.36%	60.36%

## EXHIBIT IV - B

# SIZE OF RISKS - SCHEDULE Y COMPANIES F - CLASS BUSINESS ONLY

## MANUAL YEAR 1999

		Intrastate SEP
		<u>excluding</u> Loss
	Number	and Expense
Intrastate Risks	of Risks	Constant
	(1)	(2)
Up to \$5,000	5	\$ 9,898
\$5,001 - \$100,000	34	\$ 1,192,997
\$100,001 - \$500,000	11	\$ 2,430,559
Over \$500,000	2	\$ 1,582,028
TOTAL	52	\$ 5,215,482

## DISTRIBUTION OF PREMIUM TO DISCOUNT BLOCK

	Number				
Size of Risk	of Risks	First \$5,000	Next \$95,000	Next \$400,000	Over \$500,000
Up to \$5,000	5	\$ 9,898			
\$5,001 - \$100,000	34	\$ 170,000	\$ 1,022,997		
\$100,001 - \$500,000	11	\$ 55,000	\$ 1,045,000	\$ 1,330,559	
Over \$500,000	2	\$ 10,000	\$ 190,000	\$ 800,000	\$ 582,028
TOTAL	52	\$ 244,898	\$ 2,257,997	\$ 2,130,559	\$ 582,028
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PERCENTAGE		4.70%	43.29%	40.85%	11.16%
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#### EXHIBIT IV - C

## AVERAGE COMPANY BUILD-BACK

# SCHEDULE X COMPANIES F - CLASS BUSINESS ONLY

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	Distribution to			
	Discount Block	Reduction		Weighted
	(EXHIBIT IV - A)	from Manual		Reduction
Up to \$5,000 \$5,001 - \$100,000 \$100,001 - \$500,000 Over \$500,000	1.62 15.66 22.36 60.36	0.0 3.5 5.0 7.0		0.00 0.55 1.12 4.23
		Build-Back	=	5.90
Intras	tate Build-Back	5.90		

Interstate Build-Back 6.40

# SCHEDULE Y COMPANIES F - CLASS BUSINESS ONLY

Premium

	Distribution to Discount Block (EXHIBIT IV - B)	Reduction from Manual		Weighted Reduction
Up to \$5,000 \$5,001 - \$100,000 \$100,001 - \$500,000 Over \$500,000	4.70 43.29 40.85 11.16	0.0 10.9 12.6 14.4		0.00 4.72 5.15 1.61
		Build-Back	=	11.48
	state Build-Back	11.48		

# EXHIBIT IV - D

## AVERAGE COMPANY BUILD-BACK

# ALL COMPANIES F - CLASS BUSINESS ONLY

	Intrastate SEP excluding Loss and Expense Constant	Interstate Build-Back
SCHEDULE X	\$ 3,361,912	6.4
SCHEDULE Y	\$ 5,215,482	11.98
WEIGHTED AVERAGE		9.79